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THE INSECT PEST SURVEY BULLETIN

A periodical review of entomological conditions throughout the United States,
issued on the first of each month from March to November, inclusive.

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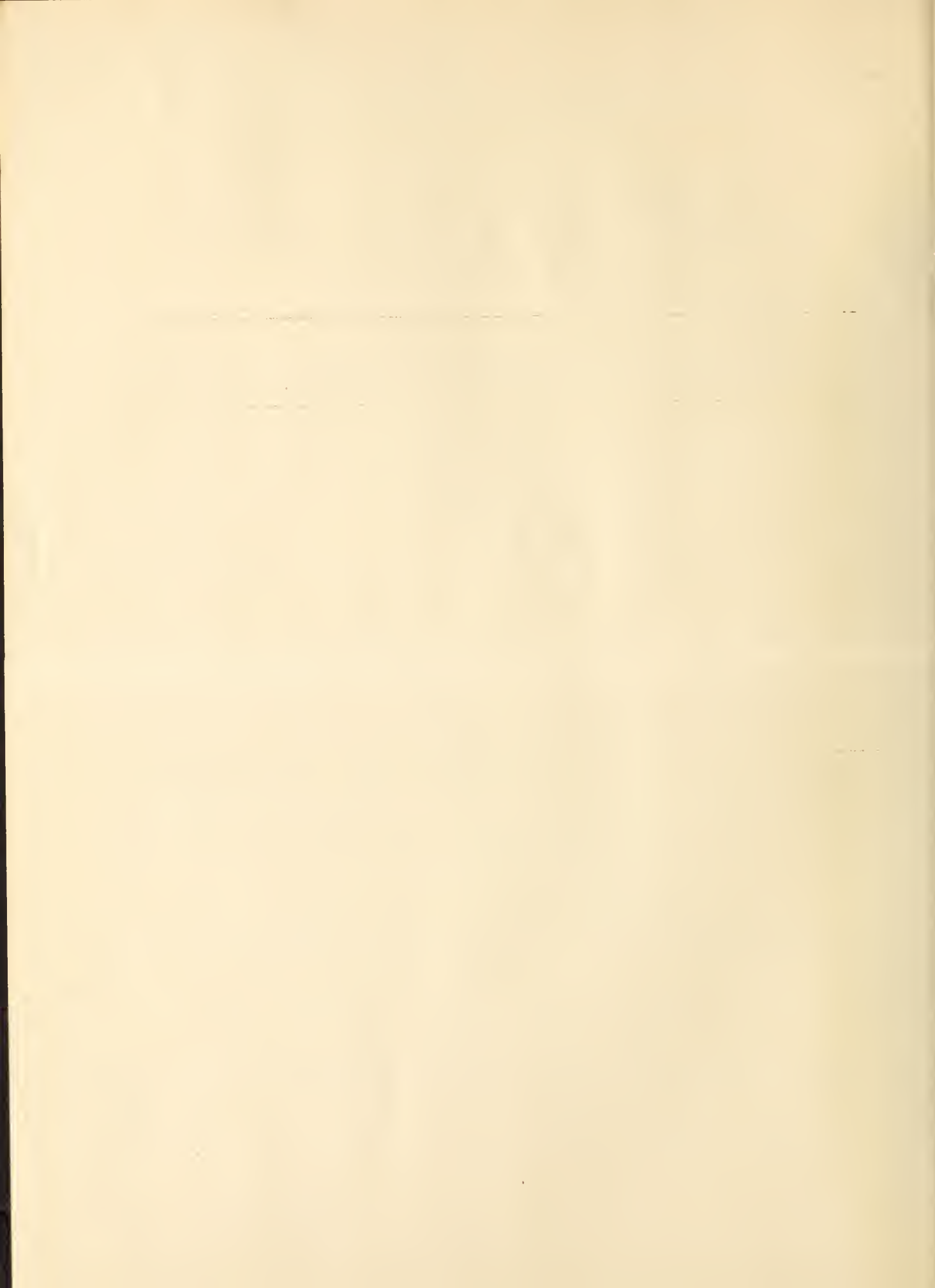
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INSECT PEST SURVEY BULLETIN

Vol. 6

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OUTSTANDING ENTOMOLOGICAL FEATURES IN THE UNITED STATES FOR MARCH, 1926

The Hessian fly situation remains about as reported in the last number of the Bulletin. The first emergence of the spring brood and the finding of eggs in the field ~~was~~ reported on March 16 from Kansas.

The chinch bug situation has not materially changed since our last report, though it appears that in most of the chinch bug belt these insects passed the winter with slight mortality.

A single outbreak of the green bug has been reported this year from Logan County, Oklahoma.

Small local outbreaks of false wireworms are being reported from parts of Nebraska and Kansas.

The army cutworm is unusually abundant in Nebraska, Kansas, and Oklahoma. In parts of Kansas and Oklahoma severe damage has already been reported.

Another flight of the painted lady butterfly similar to the one reported in 1924 is under way in California. Direction of flight was the same as during the other outbreak, that is, from the Southeast.

Throughout the New England and Middle Atlantic States, and apparently also in the Mississippi Valley region, apple aphid eggs are generally less prevalent than usual. Reports of abnormally low egg counts have been received from Massachusetts, New Jersey, and Missouri.

The plum curculio appears to be less prevalent than usual this year in the Georgia peach belt.

A new pest of prunes is reported in this number of the Bulletin from Idaho, being a small moth (Mineola scitulella Dyar).

The weevil Glyptoscelis squamulata Crotch is again reported as doing damage in the Imperial Valley in California. This weevil was first reported as a pest of grapes in the Survey Bulletin of May, 1922, at which time it was doing damage in southern Nevada. It was again reported last year, in the Coachella Valley of California. The damage is done by the adult beetles eating into the unfolding buds of the grapes.

The citrus nematode Tylenchulus semipenetrans Cobb is reported for the first time from Arizona.

In parts of the State of Sinaloa, Mexico, the garden fleahopper is abundant enough to threaten the commercial tomato crops.

The twelve-spotted asparagus beetle has been collected for the first time in the State of Illinois. It appeared in students' collections in the fall of 1925. Some of these beetles were collected in Lake County and Piatte County, the remaining specimens having been collected on the University grounds at Champaign. Extensive collections made over the period 1922-25 indicate that this pest was not prevalent enough to be taken prior to 1925. This is the westernmost record for the twelve-spotted asparagus beetle, despite the fact that general publications on economic entomology give its distribution as practically the same as that of C. asparagi.

A new and undetermined species of Hypera has been reported as a carrot pest from the San Jose district of California.

The nut fruit tortrix, Laspeyresia splendana, a pest of chestnuts, walnuts, and acorns in Europe, has been discovered by the quarantine officials infesting Italian chestnuts offered for sale in California.

CEREAL AND FORAGE - CROP INSECTS

WHEAT

HESSIAN FLY (Phytonhaga destructor Say)

- Missouri L. Haseman (March 24): The Hessian fly is attracting no attention, owing to the wet fall and necessarily late seeding of wheat. I do not expect any trouble from the pest this year.
- Kansas J. W. McCulloch (March 18): There is lots of the fly in the wheat, especially in volunteer, and it looks promising for considerable damage this spring.
- J. R. Horton (March 23): The first Hessian fly eggs were found in the field March 16. Over 50 per cent of the puparia now contain pupae, but emergence is slow.

PLAINS FALSE WIREWORM (Eleodes opaca Say)

- Nebraska M. H. Swenk (April 1): During the second week in January reports were received of serious local injury to winter wheat in Hitchcock County, near Trenton, by the plains false wireworm.
- Kansas J. W. McCulloch (March 2): Specimens of these worms were received from Tribune with the information that the fields are badly infested with them. The wheat is not greening up as it should and it is thought that these larvae are responsible for this condition.

GRASSHOPPERS (Acridiidae)

- Idaho Claude Wakeland (March 19): Grasshoppers caused us almost no injury last season and the decrease from a pest of major importance has been gradual since 1922. During that year a sarcophagid fly was noticed to be abundant and widely distributed and parasitism was fairly heavy. Parasitism has increased steadily since then and I believe that this parasite was responsible almost entirely for the destruction of hoppers.

ARMY CUTWORM (Euxoa auxiliaris Grote)

- Nebraska M. H. Swenk (April 1): Reports of the presence of the army cutworm in conspicuous numbers in the fields of Perkins County were received about the middle of March.
- Kansas J. W. McCulloch (March 6): Specimens of the army cutworm were received from Bloom, with the information that the worms were present by the thousands on the ground. There is 160 acres in the field and 40 acres has been cleaned up. (March 19): The county agent reports the worms devastating several wheat fields in Farneo County.
- J. R. Horton and H. H. Walkden (March 23): Outbreaks have occurred in the last three weeks in Clark, Ford, Sumner, Sedgwick, Kenyon,

Harper, Pawnee, and Butler Counties. Wheat and alfalfa are the crops attacked.

Oklahoma J. R. Horton (March 23): Garfield, Blaine, Woodward, Kiowa, Harper, Roger Mills, Woods, Texas, and Jackson Counties, reported as being attacked by this insect. Alfalfa, wheat, oats, and barley are the principal crops attacked.

Montana R. A. Cooley (March 26): Army cutworms, as many as 40 to the square meter, have been found in stubble fields in central Montana over an area extending many miles, bordering grain fields, and an outbreak seems certain. Moths were found in abundance last summer. The larvae are yet in hibernation and as soon as vegetation starts reports of damage are expected.

GREEN BUG (Toxoptera graminum Rond.)

Oklahoma J. R. Horton (March 23): An outbreak of Toxoptera has been reported from Logan County.

WHITE GRUBS (Phyllophaga spp.)

Mississippi R. W. Harned (March 27): Are somewhat later than usual in making their appearance this year. This is undoubtedly due to the fact that so far we have had very little warm weather.

CORN

CHINCH BUG (Blissus leucopterus Say)

Florida E. W. Berger (January 20): The chinch bug occurs in Florida, mostly on lawns of St. Augustine grass, and becomes injurious mainly during dry periods.

Illinois W. P. Flint (March 22): Examinations of chinch bugs in the usual hibernating quarters show that very few bugs have perished during the winter. Apparently the southern limit of damage by chinch bugs will be along the line of Perry and Washington Counties. Recent examinations by S. C. Chandler, in Jackson County, show very few bugs in that part.

Missouri L. Haseman (March 24): The chinch bug has survived the winter in goodly numbers and with favorable spring and summer weather it is likely to cause trouble in scattered localities. The pest is abundant only in spots.

Nebraska M. H. Swenk (April 1): The chinch bug has been reported during January, February, and March from different counties in eastern and southern Nebraska as successfully wintering to a greater or less extent on the cornstalks in the field. Farmers have been inquiring as to how best to handle such infested stalks. Apparently the winter mortality of the chinch bug in Nebraska has not been so high as was expected when the pests went into wintering in increased numbers last fall.

Kansas J. W. McCulloch (March 18): Recent counts of the number of chinch bugs in hibernation show that in some areas the grass is full and that there has been very little winter mortality. Many bugs have survived the present winter in Sudan grass and cornstalks, which is rather unusual in this State.

CORN EAR WORM (Heliothis obsoleta Fab.)

Nebraska M. H. Suenk (April 1): On November 16, a correspondent in Red Willow County sent in a number of specimens of the robber fly, Goryphus fallax Back, with the statement that it was quite plentiful in his cornfield. He thought that they were connected with injury done by the corn ear worm in that field during the past summer.

STED CORN BEETLE (Aronoderus pallipes Fab.)

Kansas J. W. McCulloch (March 18): Adults of this beetle were flying at Abilene on March 15.

CLOVER AND ALFALFA

CLOVER LEAF WEEVIL (Hypera punctata Fab.)

Kansas Roger C. Smith (March 24): Small to half grown larvae have been found in fair numbers at the horse barn, southern slope, Kansas State Agricultural College. Two or three larvae to the clump occur in the more heavily infested spots. A few larvae are present in other fields. Evidence of feeding is readily found.

Idaho Claude Wakeland (March 19): Numerous newly emerged larvae of the clover leaf weevil were collected in alfalfa crowns, February 22, at Hammett. Eggs collected on the same date hatched soon after being placed in the collecting vials.

CLOVER LEAFHOPPER (Agallia sanguinolenta Prov.)

Kansas Roger C. Smith (March 24): The most plentiful insect in alfalfa this spring. Plentiful in all fields, no injury observed.

F R U I T I N S E C T S

APPLE

APHIDAE

Massachusetts A. I. Bourne (March 22): There are very few aphid eggs to be found, comparatively speaking, although one case has been reported from West Springfield where young apple trees are showing a tremendous number of eggs of these insects. In the college orchard there are almost no eggs to be found, and in only one block could we find what could be called a moderately light infestation. Throughout the rest of the orchard there was only an occasional egg here and there.

New Jersey. Thomas J. Headlee (March 15): Very interestingly it appears that the overwintering eggs of the common apple aphids, rosy, green, and oat, are scarce.

Virginia W. S. Hough (March 19): Aphid eggs on apple trees are few in number in this section (Winchester). The eggs are more difficult to find this season than at any time in the past four years.

L. R. Cagle (March 19): I have made a number of careful searches in different orchards in Leesburg, and as yet I have not found an aphid egg.

Missouri L. Haseman (March 24): Apple aphids in central Missouri failed to get back to apples to deposit their eggs last fall. At this time eggs are extremely difficult to find.

APPLE APHID (Aphis pomi DeG.)

Idaho Claude Wakeland (March 19): On March 24, 1925, I observed the first eggs of the apple aphid hatched. The date of the first observation of nearly emerged aphids of this species this year was March 3.

WOOLLY APPLE APHID (Eriosoma lanigerum Hausm.)

Mississippi R. W. Harned (March 27): The woolly apple aphid on apple was received on January 19 from Stanton, on February 4 from Taylor, and on February 15 from Helena and Holly Springs. The aphids have all been determined by Mr. A. L. Hamner.

CODLING MOTH (Carpocapsa pomonella L.)

Missouri L. Haseman (March 24): The codling moth was especially abundant in the southern half of the State last year and with the rather open winter we shall expect serious trouble this coming summer. In central and northern Missouri the pest was less serious.

EASTERN TENT CATERPILLAR (Malacosoma americana Fab.)

Massachusetts A. I. Bourne (March 22): We have received a report from one of our collaborators in Harvard, also from Mr. Farrar of South Lincoln, that tent caterpillars in that section are apparently less numerous than last year. We have been expecting that the first indications of a let-up for the present wave of abundance would be reported from that section of the State. So far as the western section of the State is concerned, apparently it is more abundant than last year.

New York E. P. Felt (March 27): There has been considerable local interest in the southeastern part of the State and on Long Island in collecting and destroying eggs of the apple tent caterpillar. This is mostly the work of school children, working for a moderate compensation and stimulated by prizes for the greatest number

of egg masses. I am advised by Mr. Henry Bird, of Rye, that nearly 100,000 egg masses may be gathered in that locality, the insect being locally very abundant.

Arkansas W. J. Baerg (March 24): Young caterpillars began to appear four or five days ago. Indications are that the caterpillars will be rather numerous. They are attacking wild cherry, peach, and plum.

SPRING CANKER WORM (Paleacrita vernata Peck)

Missouri L. L. Haseman (March 24): The spring canker worm is likely to cause some trouble this spring. Male moths have been out since the 15th of March in greater abundance than usual in central Missouri.

Nebraska M. H. Srenk (April 1): Gravid spring canker worm moths were first observed emerging from the ground in Buffalo County on March 16.

TARNISHED PLANT BUG (Lygus pratensis L.)

Illinois W. P. Flint (March 23): Mr. S. C. Chandler examined 45 mullein plants in Jackson, Perry, and Washington Counties, finding only 1 bug in the entire lot, which is in contrast to last year's findings, as most mullein plants had at least a few bugs in the winter of 1924-25. The finding of some bugs in alfalfa fields is an indication that bugs did not go into true hibernation this winter. Adults of the tarnished plant bug were flying in considerable numbers on March 18.

SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

Massachusetts A. I. Bourne (March 22): Late in the fall we had several complaints which indicate that the San Jose scale was increasing to a noticeable extent. From the reports which have come in to this office, a much larger number of growers will employ oil sprays the present season than ever before.

New York R. E. Horsey (March 29): San Jose scale was not very abundant at Rochester on cottonasters. It is easily controlled by spraying with miscible oil.

Illinois W. P. Flint (March 23): Recent examinations of the San Jose scale on unsprayed trees in southern Illinois show from 40 to 50 per cent alive.

Mississippi R. W. Harned (March 27): The San Jose scale has been reported from many parts of the State and on various plants during the winter. The injury varied from slight to very severe. Lubricating-oil emulsion is probably now the most popular spray material for this scale insect.

Missouri L. Haseman (March 24): The San Jose scale is at an unusually low ebb in central Missouri and is not serious in the Ozarks section of the State.

Kansas J. W. McCulloch (March 18): Apple twigs heavily encrusted with the San Jose scale have been received from Brown and Kingman Counties.

- Idaho Claude Wakeland (March 19): I have not made extensive examinations of the San Jose scale but of 5,000 insects examined on new water sprouts approximately 66 per cent are alive.
- Oregon Don C. Mote (January 19): Reports from county agents indicate that the San Jose scale is increasing in Douglas and Baker Counties. It is about holding its own in Josephine, Tillamook, and Benton Counties, and seems to be decreasing in Lane, Multnomah, and Wasco Counties. Very little if any scale seems to be present in Klamath County and no information was received from Clatsop and Lincoln Counties.

CYSTER-SHELL SCALE (*Lepidosaphes ulmi* L.)

- Michigan R. H. Pettit (March 16): The oyster-shell scale was received from Mason, Shaftsbury, and DeWitt today. In fact the oyster-shell scale is more generally distributed over the State than we could wish.
- Nebraska M. H. Swenk (April 1): During the past winter a number of reports of infestation of Nebraska apple orchards with the oyster-shell scale were received.

EUROPEAN RED MITE (*Paratetranychus villosus* C. & F.)

- New Jersey Thomas J. Headlee (March 15): I wish to report a practically state-wide abundance of the European red mite, particularly upon apple, but also upon peach. This distribution has been determined in the course of a survey of the occurrence of overwintering eggs.

A MARCH FLY (*Bibio albipennis* Loew)

- Idaho Claude Wakeland (March 19): Larvae were collected in the soil at the base of an apple tree. I do not know that they are of any economic importance but they were sent to me by a farmer with a request for information.

PEAR

SPOTTED CUCUMBER BEETLE (*Diabrotica 12-maculata* Fab.)

- Mississippi R. W. Harned (March 27): Reported as being found on pear trees at Gulfport during the first half of February by E. K. Bynum, and on peach at Durant on February 10, by G. R. Williams. H. Gladney and J. P. Kislanko report medium damage from this insect to pear blossoms on February 27 at Ocean Springs.

PEACH

SAN JOSE SCALE (*Aspidictus perniciosus* Comst.)

- Georgia Oliver I. Snapp (March 19): At least three-fourths of the Georgia peach acreage at Fort Valley was sprayed with lubricating-oil emulsion last winter for San Jose scale control. Liquid lime-sulphur was used in the other orchards. As a result the insect is now under very good control. It has been prevalent in all sections of the peach belt, but is no worse than during other recent years.

PEACH BORER (Agarima exitiosa Say)

Georgia Oliver I. Snapp (March 19): A large quantity of paradichlorobenzene was used again in the Georgia peach belt last fall, and uniformly good results were reported. Although the peach borer is prevalent in all sections of the peach belt it is now under very good control.

Mississippi R. W. Harned (March 27): This insect has been observed during the winter by Kimble Harman at Gulfport, H. P. Colmer at Moss Point, D. W. Grimes at Leland, R. B. Deen at Tupelo, and G. E. Williams at Durant. They have reported in regard to these insects on several occasions, and the reports vary greatly as follows: "Few found," "slight damage," "medium damage," and "bad."

ORIENTAL PEACH MOTH (Laspeyresia molesta Busck)

Georgia Oliver I. Snapp (March 19): The first pupation record of the spring brood was on February 24, 1926. No spring-brood moths have issued to date (March 19). Anticipating a very light infestation in Georgia this year.

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Georgia Oliver I. Snapp (March 19): A lighter than normal infestation is anticipated in the Georgia peach belt this year. On account of the light infestation in 1925, the curculio population in the orchards at the close of that season was lighter than normal. The numbers were perhaps materially reduced by the very low temperature of 19.5°F. on March 14 after many adults had left hibernation. The peach crop was also damaged from 40 to 50 per cent by the freeze of the 14th.

PRUNE

A MOTH (Mineola scitulella Dyar)

Idaho Claude Wakeland (March 19): A small moth was reared from larvae that caused serious loss in a prune orchard near Boise last season. The larvae are wintering through in light cocoons on the outside of the bark. The work was similar to that of the peach twig borer and the owner is spraying now with lime sulphur as for control of that insect. The infestation is quite heavy and distributed over a large area.

GRAPE

A WEEVIL (Glyptoscelis squamulata Cr.)

California T. D. Urbahn (March 17): Considerable damage was reported by R. L. Nougaret who investigated vineyards in Coachella, Imperial Valley. Adult beetles were reported eating into the unfolding buds.

PECAN

RED SPIDER (Tetranychus spp.)

Mississippi R. W. Harned (March 27): During the winter the only complaints that have been received in regard to red spider injury have come

from the Gulf Coast. In November, 1925, we received a report of red spider injury to pecan trees in Jackson County from R. P. Colmer. During January and February Kimble Harmon reported that red spider injury to citrus plants varied from slight to severe at Gulfport. From the same place E. K. Eynum on January 9 reported medium damage to citrus and on February 12 he reported an express shipment of citrus plants from Alabama with a "medium" infestation of red spiders. On March 2 R. P. Colmer reported slight damage to citrus plants from red spiders at Moss Point. On February 1 H. Gladney reported that very few red spiders were found on turnips at Ocean Springs. All of the places mentioned above are on the Gulf Coast.

PECAN LEAF CASE BEARER (Acrobasis nebulella Riley)

North Carolina R. W. Leiby (March 23): Complete defoliation in the largest pecan orchard of the State is threatened by the pecan leaf case bearer. Examination of 149 buds shows an average of 4.01 hibernacula per bud. Of these 85.5 per cent show living larvae, 8 per cent dead larvae, and 6.5 per cent larvae parasitized by Secodella acrobasis. A similar condition, but not quite so severe, existed in the spring of 1916, which was followed by almost complete defoliation. Spraying will be essential as additional parasites will not be effective until larvae are nearly full grown. The last outbreak was nine and ten years ago.

Mississippi R. W. Harned (March 27): Has been reported as abundant in certain places along the Gulf Coast.

CITRUS

CITRUS NEMATODE (Tylenchulus semipenetrans Cobb.)

Arizona Arizona News Letter Vol. 4, No. 2, Feb. 28: The citrus nematode, a parasite on the root systems of citrus trees in practically all parts of the world, has recently been discovered in some of the citrus groves of Arizona. The distribution and spread of this pest throughout the citrus districts of this State have not yet been determined but efforts are being made to ascertain this at an early date.

It has been the opinion of agricultural and horticultural investigators that this pest was not present in Arizona. Recently one of the citrus growers northeast of Phoenix requested a special examination of the root systems of some of his trees. In complying with this request some of the root systems were brought into the laboratory, given a careful washing under the tap, and later were examined microscopically for the presence of nematodes. The first mounts showed the presence of nematodes which were at once suspected of being the typical citrus nematode. More material was collected and sent to the citrus experiment station of California, and to the U. S. Department of Agriculture, for the correct determination of this parasite. At a later date specimens were collected and examined by the Plant Pathologist of the University of Arizona.

Reports have been received from each of these three sources, confirming the identification of the organism as the citrus nematode.

The first report was received from Prof. E. E. Thomas, of the Riverside Citrus Experiment Station of California. Prof. Thomas states in part: "I have examined the roots and find that they are infested with the citrus nematode. It is not always possible to be sure regarding the nematode unless you locate a number of females with their anterior portions embedded in the roots. I found a number of females and am positive that it is the citrus nematode." The next report was obtained from Dr. J.G. Brown, Plant Pathologist of the University of Arizona. Dr. Brown found that the swollen female nematodes were numerous. The final report was obtained from Dr. N. A. Cobb. Dr. Cobb states, "An examination of the grapefruit roots accompanying your letter of February 12 shows them to be infested with the citrus nematode Tylenchus semigenethans." Dr. Cobb further states that in some cases the disease has been regarded as very serious, and in others of no very great consequence.

The Survey work which has been done up to the present indicates that the organism is present in different sections of the Salt River Valley citrus district. Root samples taken from three different sections have revealed the presence of the organism in as many groves. Samples have also been taken from other groves in these sections and no parasites could be found. The seriousness of this pest and the amount of damage which can be ascribed to it will be determined by further surveys.- D. C. George.

SPIRAEA APHID (Aphis spiraeicola Patch)

Florida

J. R. Watson, through E. W. Berger (January 20): The so-called "new citrus aphid," Aphis spiraeicola Patch, is still present but scarce because of the dormancy of citrus trees induced by prolonged cool weather.

CITRUS WHITEFLY (Dialeurodes citri Ashm.)

Mississippi

B. W. Harned (March 27): This insect has been reported quite frequently from a number of places during the winter. On January 5 G. R. Williams reported medium damage to cape jasmine and privet plants at Durant, and on February 7 he reported slight damage to euonymus and cape jasmine.

On January 14 and February 25 N. D. Peets reported slight damage to privet at Laurel.

On January 12, J. E. McEvilley reported that very few whiteflies could be found on Satsuma oranges at McComb, but the sooty mold that follows these insects was observed.

During the first half of January and February Kimble Harmon reported that injury from whiteflies to citrus, privet and cape jasmine in the vicinity of Gulfport varied from no damage to very severe damage. From the same place E. K. Bynum reported some plants with very few whiteflies and others slightly damaged.

During January and February H. Gladney and J. P. Kislenko reported slight damage from the whitefly to Satsuma oranges at Gulfport, and on March 13 reported severe damage to cape jasmine.

On March 22 M. E. Grimes at Meridian reported that very few whiteflies were found on cape jasmine at that place.

TRUCK - CROP INSECTS

GENERAL FEEDERS

PAINTED LADY (Vanessa cardui L.)

California

E. A. McGregor (March 27): In the spring of 1924 the writer reported a migration in vast proportions of the thistle butterfly (Vanessa cardui L.) which consumed three days in the flight. Commencing March 20 a similar migration of this butterfly has been progress until March 26. Only an occasional individual has been seen today, and I am certain that the flight is virtually ended. Thus the present migration has occupied just a week. The greatest density was reached at Lindsay on the 24th, when many hundreds were continually in sight at any moment. I believe that the migration of 1924 was more spectacular owing to the fact that at its height the butterflies were more numerous per unit of area, but it seems probable that the flight of this spring included more individuals owing to its much longer duration.

As nearly as could be ascertained, the direction of flight was identical both years, namely, from the southeast to the northwest. The remarkable features of these migrations is that the butterflies are to be seen at the same time over the greater portion of southern and central California, including a north and south range of over 500 miles. As in 1924, the latest flight was coincident with the warmest weather of the year, to date, the maximums having been between 78° and 88°.

During the major part of the day the butterflies keep moving, but as dusk approaches they appear to settle for the night on any sort of vegetation bearing blossoms. A very limited amount of feeding is done during the day on orange blossoms. Egg laying did not appear to occur in this district to a noticeable extent in connection with the 1924 migration, but at that time Mr. Roy E. Campbell reported an outbreak of the caterpillars of the species, following the flight of the adults in southern California.

WIREWORM (Elateridae)

Texas

F. L. Thomas (March 27): Wireworms have done some damage to vegetable crops in Brazos and Washington Counties.

APHIDIDAE

Texas

F. L. Thomas (March 27): Plant lice are rather abundant on truck crops.

CUTWORMS (Noctuidae)

Texas

F. L. Thomas (March 27): Cutworms do not seem to be as troublesome as usual.

TOMATO

GARDEN FLEAHOPPER (Malticus citri Ashm.)

Mexico

A. W. Morrill (February 20): In December (up to the 20th) the garden fleahopper was more common in this district than during any December of the last four or five years. Only one field suffered actual damage in December in the Los Mochis district (Fuerte Valley), Sinaloa, Mez., but several fields of young plants had so many of the bugs that the prospects for the crop appeared hopeless. By January 15 a marked improvement had occurred except in one area not over 1/2 mile square: excessive rainfall for that season of the year occurred on December 31. This may have destroyed many nymphs but could not have been the cause of checking of the insects. A slight frost on the morning of January 25 had no effect on any stages of the insects even where plants were damaged. One center of infestation exists and the damage to the 1926 tomato crop will depend on the success of the attempt to destroy the bugs in this place and prevent their spread. Fleahoppers were more abundant on January 28-29 in the Culiacan Valley than at the same time in the previous four years but no damage was noted. Crop conditions have been abnormal on account of the destructive rainfall beginning December 31. There has been no frost. Tomato plants have been generally weakened by excessive soil moisture.

SWEET POTATO

SWEET POTATO WEEVIL (Cylas formicarius Fab.)

Mississippi

R. W. Harned (March 27): The sweet potato weevil is still to be found in parts of five counties in the southern part of Mississippi. These counties are Hancock, Harrison, Jackson, Pearl River, and George. These insects have been eradicated from many properties by the Bureau of Entomology and State Plant Board. No reports of serious injury from a sweet potato weevil have been received this year. Slight damage has been reported from some properties.

CABBAGE

CABBAGE MAGGOT (Hylemyia brassicae Bouche')

Alabama

J. M. Robinson (February): In Loxley this insect was attacking cabbage that was beginning to head.

CABBAGE APHID (Brevicoryne brassicae L.)

Mississippi

R. W. Harned (March 27): At Ocean Springs, Meridian, Holly Springs, Laurel, and other places collards and cabbage have been found infested with Brevicoryne brassicae.

DIAMOND-BACKED MOTH (Plutella maculipennis Curt.)

Mississippi

R. W. Harned (March 27): Was reported by D. W. Grimes as causing severe damage at certain places near Ieland, Miss. on February 4, 1926.

SPOTTED CUCUMBER BEETLE (Diabrotica 12-punctata Fab.)

Alabama

W. A. Ruffin (February 8): This insect is quite active and abundant in Loxley, as compared with the average year, and is feeding on cabbage leaves.

TURNIP APHID (Rhopalosiphum pseudobrassicae Davis)

Mississippi

R. W. Harned (March 27): Turnips at Meridian, Gulfport, Long Beach, Purvis, Senatobia, Durant, and other places have been found to be seriously infested with Rhopalosiphum pseudobrassicae.

Louisiana

Herbert Spencer (March 15): Aphis pseudobrassicae has been troublesome for the last two weeks at Baton Rouge on cabbage, turnips, and mustard greens. There have been complaints from all portions of the State.

ASPARAGUS

TWELVE-SPOTTED ASPARAGUS BEETLE (Crioceris 12-punctata L.)

Illinois

W. V. Balduf: The twelve-spotted asparagus beetle has been taken in Illinois for the first time as far as known. It appeared in insect collections made by students in entomology at the University during the summer and fall of 1925. Upon inquiry of the students having specimens in their possession it was learned that two were collected from asparagus at Woodstock, Lake County, near Chicago, on August 30, 1925, and others had been taken there but were not included in the collection. Two others, bearing no data, had been taken during the summer at Atwood, Piatt County, on the west border of Champaign County, where the University is located. The remaining specimens were obtained from the asparagus plots and fields of the university, in 1925, and bore data as follows: September 15, Oct. 2, 3, 5, 12, 15, 17, and 21. Mr. L. L. English took one specimen in the University asparagus field on July 12, 1925, which is the earliest record known for the occurrence of the beetle in this State.

Approximately 600 student collections, composed chiefly of material picked up around the University have been examined since 1922; and this beetle was never noted in them before 1925. In the fall, winter, and spring of 1923-1924, a graduate student of this department, making a study of the common asparagus beetle here, did not discover the 12-spotted species. These evidences, together with the failure of the local entomologists to find it, and the fact that it is not represented in the Illinois State Natural History Survey

collection, are strongly in favor of the belief that it did not reach this locality before the last twelve months. Three assistant entomologists of the Natural History Survey, working respectively in northern, central, and southern Illinois, have not taken specimens to date. Hence, although present, it is still scarce and not widely spread in the State.

GENERAL

In order to determine the extent to which this species may have spread into the Middle States, letters were sent to entomologists in Kentucky, Iowa, Kansas, Missouri, Wisconsin, Indiana, Michigan, and Ohio. To date it is not known from the first five States named, even though Herrick (Manual of Injurious Insects, 1925, p. 270) says, "It is now distributed over much the same territory as C. asparagi except that it has not reached California." The species is recorded from Indiana, Michigan, and Ohio. Prof. Pettit ventured to state that it first entered Michigan from Ohio seven or eight years ago, or about 1916. Mr. Dietz, Indiana, kindly furnished records which show that this beetle occurred in Noble County in the northeastern corner of that State in 1920, and at Cambridge City, Wayne County, near the Ohio border east of Indianapolis in the same year.

Records for Ohio indicate its presence there earlier and also more widely spread than in Indiana and Michigan. Fink (Cornell Univ. Agr. Exp. Sta. Bul. 331, 1913) summarized its distribution up to that time, showing that it had spread "as far west as Ohio, and as far north as to include the Niagara peninsula." T. L. Guyton (Ohio Agr. Exp. Sta. Mo. Bul., Vol. IV, p. 199, 1919) indicates that it was not at all common in that year. The present writer did not find it about Marietta, Ohio, during the seasons of 1919, 1920, and 1921, during which years some time was given to asparagus beetles. A. E. Miller, in his study of truck-crop insects at Chillicothe, Ohio, from 1922 to 1925, found two or three individuals in 1923. Whereas it was absent or rare in southern Ohio, Miller informed the writer that it had been reported commonly theretofore from the northern part of the State.

According to Fink, l. c., this beetle was first observed near Baltimore, Md., in 1881, and spread north into Canada and into Delaware, Pennsylvania, New Jersey, New York, Connecticut, Rhode Island, Massachusetts, and Maine. It seems that the prevailing westerly winds operated to prevent its dissemination directly westward, causing it to take a northwestward, north, or northeastward direction. When it reached the Great Lakes it probably crept along their southern shores and has gone at least to the Chicago area at present. This is shown by the fact that most of the records are for the northern parts of Ohio, Indiana, and Illinois, and for southern Michigan. From that barrier line the species seems to be spreading southward and westward, appearing again to be deflected from a due west direction by the west winds of this region. When it has gone beyond the southern border of Lake Michigan it will presumably spread northward more promptly into Wisconsin and other northwestern States.

The paths over which insects of economic importance spread into new territory, and the factors determining these routes, must be regarded as of much value. Here is a species in process of spread

in our midst, and it affords a splendid opportunity to gather much additional data on dissemination, which may be utilized, along with records for the corn borer, the Mexican bean beetle, and others not steadily extending their limits, to establish the factors governing this activity.

PEAS

CUTWORMS (Noctuidae)

Mississippi R. W. Harned (March 27): Cutworms were reported by H. H. Carpenter on February 25, as doing slight damage to English peas at New Augusta, Perry County. So far most of the reports regarding cutworms have been negative.

PEA APHID (Illinoia pici Kalt.)

Kansas Roger C. Smith (March 24): Very numerous in alfalfa patch, south of College horse barn. Alfalfa much more advanced than in fields. Aphids not present elsewhere.

Oklahoma C. E. Sanborn: The pea aphid which seriously injured the alfalfa crop in the State in 1921 is present again this year.

Arizona Arizona News Letter Vol. 4, No. 2, (February 28): The large green pea aphid was reported and observed in several fields of winter peas. Parasites, especially the ladybird beetles, were found to be quite numerous in one of the fields examined.

Mexico A. W. Morrill (February 18): This pest was unusually abundant throughout the season of 1925 at Sonora, in the Yaqui Valley, attacking cotton and beans with bad results. It continued numerous through December and occasional full grown worms were still to be found late in January, having survived several light frosts occurring during the month.

CUTWORMS (Noctuidae)

Arizona Arizona News Letter, Vol. 4, No. 1, (January 31): Mr. Fred C. Fullen, who is located northwest of Phoenix, is very enthusiastic over the results he obtained in poisoning cutworms. Mr. Fullen planted lettuce in a 10-acre field and the worms destroyed so many of the plants that the lettuce was disked up and the land replanted to winter peas. As soon as the peas began coming through the soil the cutworms began to attack them. An examination of the field showed that the worms were plentiful and were in practically all stages of development. The poisoned bran mash consisting of Paris green and bran was applied in the dry form but the worms apparently failed to eat this. Several days later the same mixture was used with the addition of the cheap molasses. This apparently attracted the worms and they ate it readily. In a short time the dead worms could be noticed along the rows by the hundreds. Mr. Fullen is of the opinion that the treatment saved his pea crop from destruction, and was very appreciative of the assistance he received in controlling the pest.

ONIONS

ONION MAGGOT (Hydrobia antiqua Meig.)

Mississippi R. W. Harned (March 27): On February 16 D. W. Grimes reported a 75 per cent infestation of what he has identified as the onion maggot at Leland. He reports very severe damage.

ONION THRIPS (Thrips tabaci L.)

Texas F. L. Thomas (March 27): Complaints of the onion thrips have been about as usual. It is abundant in the lower Rio Grande Valley.

CUTWORMS (Noctuidae)

Texas F. C. Bishopp (March 22): Cutworms are reported to be causing considerable damage to onions that are being grown from sets on a considerable scale in this vicinity (Selina).

LETTUCE

BLACK CUTWORM (Agrotis ypsilon Rott.)

Idaho Claude Wakeland (March 19): A moth of this species was reared from a cutworm that did heavy injury to head lettuce last fall at Parma. It lived within the head and destroyed the market value of all heads attacked.

GREEN PEACH APHID (Myzus persicae Sulz.)

Mississippi R. W. Harned (March 27): Myzus persicae Sulz. was reported by T. F. McGhee as damaging lettuce and turnips at Holly Springs during February and March.

SOWBUGS (species undetermined)

Louisiana Herbert Spencer (March 15): Sowbugs (species not determined) have appeared in vegetable gardens and in flower gardens around Baton Rouge and Columbia, and have done some damage. Their appearance is usual at this time of the year, I understand.

CARROTS

HYPERA SP.?

California E. D. Urbahms (March 5): Attention was called to carrot field in truck gardens in San Jose badly infested with greenish insect larvae. Field visited together with Horticultural Commissioner showed larvae and pupae of large curculionid probably Hypera sp. present in abundance. Adults not located. Larvae of stages half grown or more were destroying crowns of plants.

TURNIPS

AUSTRALIAN TOMATO WEEVIL (Listroderes obliquus Gyll.)

Mississippi R. W. Harned (March 27): This insect has been reported by correspondents from the following counties: Jones, Lamar, Jefferson, Forrest, George, Jackson, and Perry. This insect is a serious pest to turnips and to a less extent is injurious to cabbage, tomatoes, and potatoes.

S O U T H E R N F I E L D - C R O P I N S E C T S

COTTON

BOLL WEEVIL (Anthonomus grandis Boh.)

Mississippi R. W. Harned (March 27): This insect has not been reported from any point in Mississippi so far this year. None have appeared in our hibernation cages at Poplarville, Raymond, Stoneville, Holly Springs, and A. & M. College. All weevils received from correspondents have proved to be other species.

Arizona

Arizona News Letter Vol. 4, No. 1, (January 31): According to the reports from the U. S. Department of Agriculture, boll weevil hibernation last fall was far above the average. A statement from the press service of the Office of the Secretary states that hibernation was higher than in any of the previous years except one. At Tallulah, La., where boll weevil hibernation records have been kept for fifteen years the number of weevils per ton of Spanish moss this winter is 280. This compares with 16 per ton for 1924, 229 in 1923, 157 in 1917, 133 in 1916, and 737 in 1915. Spanish moss is the favorite hiding place for the boll weevil and is therefore used by the department's investigators as an index of the rate of hibernation.

THEUBERIA WEEVIL (Anthonomus grandis thurberia Pierce)

Arizona

Arizona News Letter, Vol. 4, No. 2 (February 26): Since the first of October, 1925, field scouts of the Federal Horticultural Board have been actively engaged in a survey of the cotton fields of Arizona to determine the spread of the thurberia boll weevil. Some of the more recent findings of these men indicate that the situation is becoming alarming if not serious.

The thorough scouting has shown that the Santa Cruz Valley cotton fields are quite generally infested. A field of sixteen acres near the Tumacacori Mission has been found to be badly infested throughout the entire field. This was the first year the field had been planted to cotton. Another field of twenty-five acres near Amado shows an infestation throughout the entire field. More weevils have recently been taken at Continental, which is the location where the first weevils of the

season were discovered. That part of the cotton fields at Sahaurita lying between the railroad tracks and the river is generally infested over the entire acreage. The most recent infestation discovered is located at Cotaro. This is in the district known as the Postvale Project, which lies northwest of Tucson. All the other infestations have been in the district south of Tucson. Approximately 2,700 acres were planted to cotton at Continental and 1,200 acres at Sahaurita, which are the regions of heaviest infestation.

In addition to the scouting in the cultivated cotton fields, much survey work has been done in an attempt to ascertain the distribution of the thurberia plants and the weevil infestation in the southeastern part of the State. The weevil had been reported from seven mountain ranges prior to the 1925 season. The more recent surveys indicate that the Tumacacori range in Pima County has both the plants and the weevils well distributed over both the lower and higher levels of the range. More thorough work in Cochise County in the Dos Cabezas and Chiricahua ranges indicates that the plants on both the eastern and western slopes of these ranges are weevil infested.

PINK BOLLWORM (*Pectinophora gossypiella* Saund.)

Arizona Arizona News Letter, Vol. 4, No. 1 (January 31): The field scouts of the Federal Horticultural Board have just visited practically every district of the State and examined thousands of bolls in their search for the pest, which is considered the most menacing to the cotton industry. Two parties of three men each have been engaged in this Survey, the parties checking against each other in some of the larger districts. No evidence of the pink bollworm was found in any district and Arizona is again declared a non-infested State. The pink bollworm is a pest of cotton seed. The young worms bore into the interior of the bolls and feed upon the contents of the seeds. Frequently two seeds are fastened together by the worm in such a way as to allow its passage from one seed to another. Live worms are also found in single seeds. This habit makes this pest well adapted to transportation with cotton seed and for this reason cotton seed from an infested territory is extremely dangerous. At the present time some districts in Texas and New Mexico are the only known infested areas in the United States. The past season the pest was again found near Carlsbad, New Mexico, in a region which was formerly infested and for a period of five years had been considered uninfested territory.

COTTON FLEA (*Psallus seriatus* Reut.)

Texas F. L. Thomas (March 27): The cotton flea hopper began to hatch from the overwintering eggs March 7 at College Station.

SUGARCANE

SUGARCANE BORER (*Diatraea saccharalis* Fab.)

Louisiana W. E. Holloway (March 8): A cooperative estimate of the damage

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to the sugarcane crop in Louisiana, due to the sugarcane moth borer, has been made for the fourth consecutive crop by Mr. Lionel L. Jones, of the Bureau of Agricultural Economics, and Messrs. T. E. Holloway and W. E. Haley, of the Bureau of Entomology, U. S. Department of Agriculture. All the work was done through the local offices of the Department in New Orleans.

The methods of estimating used by the two organizations were widely different, the entomologists calculating their results from field examinations made by themselves, while the Bureau of Agricultural Economics relied on the replies to questionnaires sent to sugar planters. Yet the estimates obtained by the two different methods were very close.

The loss for 1925 was estimated at 30 per cent of a full crop. This compared with a loss of 13 per cent for 1924, 23 per cent for 1923, and 17 per cent for 1922. The loss for a normal year is estimated at 19 per cent. In 1925 there was literally a loss of 100 per cent for some fields, where the cane was so badly bored that it was refused by the factory.

FOREST AND SHADE-TREE INSECTS

BAGWORM (Thyridopteryx ephemeraeformis Haw.)

Kansas J. W. McColloch (March 15): A report from Hartford, Lyon County, was received of the presence of large numbers of bagworms on shade trees.

PINE

EUROPEAN PINE SAWFLY (Diprion similis Hartig)

New York R. E. Horsey (March 29): Four winter cocoons were found at Rochester, all parasitized.

PINE LEAF SCALE (Chionaspis pinifoliae Fitch)

New York R. E. Horsey (March 29): At Rochester, the pine leaf scale was nowhere abundant, except on one small tree.

BOXELDER

BOXELDER APHID (Leptocoris trivittatus Say)

Nebraska M. H. Swenk (April 1): The boxelder aphid caused considerable comment as a pest in houses during the late fall and early winter of 1925.

RED MITE (Tetranychus spp.)

Massachusetts A. I. Bourne (March 22): So far as we have been able to gather data over the State, it would seem that the red mites are going to be everywhere quite abundant, although in particular orchards the infestation is somewhat spotty; that is, some blocks may be

quite heavily infested, while others show practically none of the overwintering eggs. Young trees particularly seem to have an abundance of eggs.

GUM

A SNOUT BEETLE (Species undetermined)

South Africa T. E. Snyder (March 18): It is stated that the snout beetle is getting a strangle hold on the gum (eucalyptus) trees in Natal as well as those of the Transvaal, and that millions of trees are menaced, states a report from Trade Commissioner Perry J. Stevenson, Johannesburg, South Africa, to the Department of Commerce, dated January 30. The Conservator of Forests at Maritzburg has stated that the beetle is now prevalent in many parts of Natal and that it is only a question of time before the whole province is affected. Experts say that eradication is impossible.

ELM

EUROPEAN ELM SCALE (Gossyparia spuria Mod.)

New York R. E. Horsey (March 29): Failed to find any living insects on trees formerly infested with this insect at Rochester.

CHESTNUT

NUT FRUIT TORTRIX (Laspeyresia splendana Huebn.)

Italy State of California News Letter Vol. 8, No. 5 (March 6): A lepidopterous larva has recently been discovered on chestnuts originating in Italy by inspectors of the Bureau of Plant Quarantine and Pest Control of the State Department of Agriculture. This larva, according to officials of the State Department of Agriculture, is thought to be the so-called nut fruit tortrix Laspeyresia splendana Huebn. and all chestnuts are being carefully inspected for evidences of its presence.

Due to the destruction of the chestnut trees in the eastern States by the chestnut bark disease, large quantities of these nuts are being imported from Italy to supply the demand, and a number of carloads are annually distributed throughout California. It was in one of these shipments imported from Italy that infested nuts were first discovered and the desirability of restrictive measures being enforced against foreign importations is now being considered by the Federal Horticultural Board.

The nut fruit tortrix is commonly distributed in Europe where it is quite destructive to chestnuts, walnuts, and acorns, its injury being confined to the nuts. It is closely related to the codling moth found on pears and apples in this State, and its work is very similar to the damage done by that pest.

OAK

GOLDEN OAK SCALE (Asterolecanium variolosum Ratz.)

New York

R. E. Horsey (March 29): The golden oak scale seems to be rare. One small tree believed to be a hybrid of the two native chest-nut oaks^{is} infested, while others, of the same variety are free.

COTTONWOOD

COTTONWOOD TENT CATERPILLAR (Malacosoma sp.)

Arizona

Arizona News Letter, Vol. 4, No. 2 (February 28): The cottonwood tent caterpillar has been the pest causing the most concern in certain parts of the Salt River Valley during the latter part of the month. Telephone calls concerning this pest have been received almost daily at the office of the State Entomologist.

I N S E C T S A T T A C K I N G G R E E N H O U S E

A N D O R N A M E N T A L P L A N T S

ASTER

SYMPHYLIDS

Oregon

C. A. Weigel (February 5): Under date of January 12 we received a letter from Mr. H. F. Fleishauer of McMinnville, stating that he was suffering serious losses as a result of symphyliids which were infesting his aster plantings in particular, and also causing injury to several of his vegetable crops. He states that the specimens have been identified by Prof. Don C. Mote of the Oregon Agricultural Experiment Station.

CREPE MYRTLE

AN APHID (Myzocallis sp.)

Mississippi

R. W. Harned (March 27): Was reported on crepe myrtle by M. L. Crimes at Meridian, on January 19.

CHRYSANTHEMUM

CHRYSANTHEMUM APHID (Rhopalosiphum rufomaculatum Tils.)

Mississippi

R. W. Harned (March 27): Was received on chrysanthemum from D. W. Crimes at Greenville on February 2.

BLACK CHRYSANTHEMUM APHID (Macrosiphoniella sanborni Gill.)

Mississippi

R. W. Harned (March 27): Was collected on chrysanthemums at Moss Point by R. P. Colmer on February 15.

EUONYMUS SCALE (*Chionaspis euonymi* Comst.)

New York

R. E. Horsey (March 29): The euonymus scale is still quite numerous on Euonymus radicans and its variety versus.

LILAC

OYSTER-SHELL SCALE (*Lepidosaphes ulmi* L.)

New York

R. E. Horsey (March 29): The oyster-shell scale is scattered on lilac less than usual at Rochester.

ROSE

AN APHID (*Macrodiphum rosaefolium* Thob.)

Mississippi

R. W. Harned (March 27): Was received from C. Z. Turner at Belzoni, Miss., on March 22.

INSECTS ATTACKING MAN AND

DOMESTIC ANIMALS

MAN

BLOOD SUCKING CONE-NOSE (*Triatoma sanguisuga* Lec.)

Florida

T. C. Bishopp (September 3, 1925): This species was submitted by a physician with a statement that in this locality, Oldsmar, it was causing considerable annoyance and some "septic results" from biting people.

AUSTRALIAN RAT MITE (*Liponyssus bacoti* Hirst)

Texas

F. C. Bishopp (February 20): This mite has been reported by several residents of Dallas as causing considerable annoyance in their homes. Inquiry showed that in each case rats were present in some numbers in the buildings. It appears that the mites have been attacking people in these homes for a month or more prior to date.

MALARIA MOSQUITO (*Anopheles quadrimaculatus* Say)

Nebraska

M. H. Suenz (April 1): Specimens of this species were observed flying for the first time this spring at Lincoln on March 17.

CATTLE

FLIES

Texas

E. W. Laake through F. C. Bishopp (March 22): A sample of

flies captured in a trap baited with a blow-fly bait showed the following percentages:

| | |
|---|------|
| <i>Phormia regina</i> | 83.6 |
| <i>Musca domestica</i> | 12.2 |
| <i>Lucilia sericata</i> | 2.6 |
| <i>Ornithya aeneosens</i> | .8 |
| <i>Muscina stabulans</i> | .6 |
| <i>Cynomyia cadaverina</i> | .2 |
| Trace of <i>Calliphora erythrocephala</i> | |
| No <i>Cochlicomyia macellaria</i> or | |
| <i>Sarcophagids</i> | |

Apparently house flies are no more abundant than in February.

HORN FLY (*Haematobia irritans* L.)

Texas

D. C. Parman & F. C. Bishopp (February 24): Cattle in the vicinity of Crystal City are being annoyed slightly by horn flies. The number per animal ranges from 15 to 150, with an average of about 100.

F. C. Bishopp (February 10): The first appearance of horn flies in the vicinity of Dallas was observed by E. W. Laake on February 10. Soon after this date scattering specimens of the horn fly were observed on some cows in a number of dairies in this vicinity.

D. C. Parman & F. C. Bishopp (February 25): A few horn flies are present on cattle in Montell but they are not yet causing annoyance. the average number per animal probably does not exceed 25.

D. C. Parman (March 24): Horn flies have not increased to any extent since March 15. On that date from 100 to 1,000 flies were present on cattle in the vicinity of La Pryor and as many as 2,500 on cattle at Carrizo Springs. The cattle were showing considerable annoyance.

A CATTLE LOUSE (*Solenopotes capillatus* Enderlein)

Iowa

F. C. Bishopp (February 5): This louse was found present in moderate numbers on a few animals in a dairy herd in Ames. This is probably the first record of this species in Iowa.

SHORT-NOSE OX LOUSE (*Haematopinus eurysternus* Nitzsch)

Iowa

F. C. Bishopp (February 6): This species was found in limited numbers on a few head of dairy cattle in Ames.

OX WEEBLE (*Hypoderma lineatum* DeVill)

Iowa

E. C. Drake and F. C. Bishopp (February 5): An examination of a number of herds of dairy cattle in this vicinity (Ames) showed the average number of grubs per head on this date to be about six. It appeared that none of the grubs had left the hosts, but a number were nearly mature.

Kansas F. C. Smith, F. C. Gates, and F. C. Bishopp (February 6): A dairy herd in Manhattan showed an average of 3.3 grubs per animal on this date. It appeared that a number had already matured and left the cattle. Information gained from stockmen in this section indicates that the grubs were rather more abundant this winter than normal.

Texas E. W. Laake through F. C. Bishopp (February 11): Heel flies were observed to be attacking cattle today. This is the first heel fly activity observed in Dallas this spring.

F. C. Bishopp (February 25): Heel flies were observed to be attacking cattle at Camp Wood on this date.

STABLE FLY (Stomoxys calcitrans L.)

Texas D. C. Parman and F. C. Bishopp (February 24): Horses and cattle in Crystal City were observed to be infested with an average of about four stable flies per animal on this date.

SCREW WORM (Cochliomyia macellaria Fab.)

Texas D. C. Parman (March 24): The screw worm fly appeared at Uvalde on March 17. On the 18th the flies were noticeable at any attractive substance and on the 24th they have become quite numerous. About 50 per cent of the flies present at exposures are this species. One specimen was observed on February 12 but no more until March 17.

POULTRY

CHICKEN MITE (Dermanyssus gallinae Redi)

Texas D. C. Parman (March 24): At Uvalde several infestations of the chicken mite have been brought to attention during the month of March. A very heavy infestation was observed on March 24. Sitting hens were weak and pale from the loss of blood, and the hatching of eggs was interfered with.

CHICKEN TICK (Argas miniatus Koch)

Texas D. C. Parman (March 24): The unusually cold weather during the winter has not apparently affected the fowl tick. No indications of mortality have been observed that were unusual and the activity of the tick on March 24 is about normal or above. The winter has not been marked by extreme cold but there has been unusually continued cold; this has apparently stimulated the tick to more than normal activity this spring, as loss of older chickens has exceeded the normal during the last two weeks.

STICKTIGHT FLEA (Echidnophaga gallinacea Westw.)

Texas D. C. Parman (March 24): A few days after a 10-inch snowfall at Uvalde the sticktight flea larvae were found in a shed on the north side of a barn that a large flock of hens roosted in. The snow blew into this shed and the ground was covered for six days and the

minimum temperature was as low as 19°F. A good number of the larvae were brought to the laboratory and put in breeding jars. A few fleas emerged during the last days of February and on March 4 there was a heavy emergence. The place from which the larvae were collected was visited and the shed was literally alive with fleas and there were a few adults attached to the hens. Eight places have been brought to attention to date (March 24) where the fleas had become so numerous that remedial measures had to be resorted to.

FEATHER MITE (Liponyssus silvianus Can. & Fanz.)

Kansas F. C. Bishopp (February 6): This destructive poultry pest was reported to have been found on a cock in the experiment station flock at Kansas Agricultural College. An examination of the pen in which this bird was confined showed the mite to be fairly abundant, and it was also present on the birds in several small adjacent pens. Professor Payne is taking immediate steps to treat all infected birds with sulphur to eradicate the mites.

PIGEON HIPPOBOSCID (Lynchia maura Bigot)

Alabama F. C. Bishopp (January 13): This pigeon parasite has been reported by a fancier here at Mobile. This insect does not appear to have become very widely distributed in this country up to the present time.

INSECTS INFESTING HOUSES AND

PREMISES

TERMITES

Nebraska H. E. Swenk (April 1): Early in January one of the owners of one of the brick office buildings in Wood River, Hall County, reported that the interior of the building was being badly damaged by the termite Reticulitermes tibialis Banks. About the middle of March it was also reported that these termites were destroying a highly prized tree on the grounds of one of the churches at Grand Island, in the same county.

Kansas E. W. McCulloch (March 18): We have been receiving quite a bit of correspondence relative to termites this month. Reports of serious damage in houses have been received from Cherryvale, Solomon, and Hound City, and injury to fruit trees is reported from Beloit and Bucklin.

J. R. Horton (March 23): Our attention had already been called to an office building and one residence in Wichita which are being seriously damaged by termites. Floors, joists, and mop boards were tunneled by the insect.

Texas F. C. Bishopp (March 20): At Dallas a species of termite was reported to be swarming from the house in this city.

ARGENTINE ANT (Iridomyrmex humilis Mayr.)

Mississippi

R. W. Harned (March 27): The argentine ant has been reported from quite a number of places during the winter. There are now 104 communities in this State that are known to be infested. During the fall and winter systematic control campaigns were put on at 36 different places.

FIRE BRAT (Thermobia domestica Pack.)

Nebraska

M. H. Swenk (April 1): Late in January a firm at Fremont that handles a good deal of paper stock complained that the silverfish Thermobia domestica was eating the edges and corners of this paper stock to such an extent as to cause considerable loss by making it necessary to throw away otherwise perfectly good stock.

AN ANT (Prenolepis imparis Say)

Illinois

M. R. Smith (March 23): This ant has been noted for the first time this spring. The nests are fairly conspicuous on lawns, especially where the soil is not too dry or exposed to much sunshine. Sexed forms can be found in the nest during this month and April.

AN ANT (Formica fusca subsericea Say)

Illinois

M. R. Smith (March 22): Ants of this species were noted for the first time this spring at Urbana. Workers were seen opening up galleries to some of their large and untidy mound nests on lawns here. This ant is an occasional house pest.

AN ANT (Iasius interjectus Mayr.)

Illinois

M. R. Smith (March 23): Sexed forms of this species have appeared by the hundreds in some houses and greenhouses here at Urbana and caused much annoyance to the property owners. Winged forms were noted particularly during January and February. The nests appear to be in the ground beneath the basement. The workers are subterranean, hence do not give trouble to housekeepers because of their foraging habits.

HOUSE FLY (Musca domestica L.)

Texas

E. W. Laake through F. C. Bishopp (February 27): House flies are breeding in considerable numbers around a local packing house plant. Traps set with house-fly bait caught several thousand specimens in a short time. Practically no flies have been seen in dwellings.



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INSECTS INJURIOUS TO STORED PRODUCTS

BEAN WEEVIL (Mylabris obtectus Say)

Nebraska M. H. Swenk (April 1): During both January and February the bean weevil Mylabris obtectus was reported as injuring stored beans in several different Nebraska localities.

STORED-GRAIN PESTS

Nebraska M. H. Swenk (April 1): Stored-grain pests have, on the whole, been rather less than normally troublesome during the past fall and winter.